

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>				PE NUMBER AND TITLE <b>0603845F ADVANCED WIDEBAND SYSTEM (AWS)</b>				PROJECT <b>4944</b>	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4944      ADVANCED WIDEBAND SYSTEM	0	0	4,982	15,130	33,802	260,929	307,515	274,737	977,095
Quantity of RDT&E Articles	0	0	0	0	0	0	0	2	2

(U) **A. Mission Description**  
The Advanced Wideband System (AWS) will provide DoD with high data rate (wideband) MILSATCOM services in accordance with the Joint Requirements Oversight Council (JROC), Joint Space Management Board approved MILSATCOM Architecture in Aug 96, and the MILSATCOM Capstone Requirements Document (CRD) approved by the JROC in Oct 97. Program Decision Memorandum IV (PDM IV) initiates incorporation of interoperable laser communications and is designed to meet the needs of the defense and intelligence communities for wideband tactical, protected tactical, broadcast, and relay communications; plan for first launch is FY 2009.

AWS will provide the follow-on to the Defense Satellite Communications System (DSCS), Global Broadcast Service (GBS) and Wideband Gapfiller System (WGS) communication services starting in FY 2009. It will provide X-band (DSCS-like), broadcast Ka-band (GBS-like), and two-way Ka-band (WGS-like) services. The six satellite constellation will provide worldwide coverage and make maximum use of commercial practices and technologies. Transformational change will incorporate laser communications and accelerate schedule.

(U) **FY 2001 (\$ in Thousands)**  
(U) \$0                      No Activity - Program begins in FY03  
(U) \$0                      Total

(U) **FY 2002 (\$ in Thousands)**  
(U) \$0                      No Activity - Program begins in FY03  
(U) \$0                      Total

(U) **FY 2003 (\$ in Thousands)**  
(U) \$4,982                New Start. Analysis of Alternatives.  
(U) \$4,982                Total

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<p>(U) <b><u>B. Budget Activity Justification</u></b>  Funding is in Budget Activity 4, Demonstration and Validation, since it supports the AWS technology demonstration and validation.</p>																																																															
<p>(U) <b><u>C. Program Change Summary (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>FY 2003</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: right;">942,795</td> </tr> <tr> <td>(U) Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    a. Congressional/General Reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    e. Rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2002 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">4,982</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2003 PBR</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">4,982</td> <td style="text-align: right;">977,095</td> </tr> </tbody> </table>										<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>	(U) Previous President's Budget	0	0	0	942,795	(U) Appropriated Value					(U) Adjustments to Appropriated Value					a. Congressional/General Reductions					b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram					e. Rescissions					(U) Adjustments to Budget Years Since FY 2002 PBR	0	0	4,982		(U) Current Budget Submit/FY 2003 PBR	0	0	4,982	977,095
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<p>(U) <b><u>Significant Program Changes:</u></b>  Added funds to FY03 to begin the AWS Analysis of Alternatives.  Satellites 1 and 2 funded in RDT&amp;E appropriation and satellites 3 - 6 funded in the Missile Procurement appropriation. The system incorporates interoperable laser communications (PE0603436F) and is designed to meet the needs of the defense and intelligence communities for wideband tactical, protected tactical, broadcast, and relay communications.</p>																																																															
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	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>																																																						
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Exhibit R-2 (PE 0603845F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE February 2002		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
<b>04 - Demonstration and Validation</b>					<b>0603845F ADVANCED WIDEBAND SYSTEM (AWS)</b>					<b>4944</b>		
(U) <b><u>D. Other Program Funding Summary (\$ in Thousands)</u></b>												
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>			
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>				
(U) Other APPN												
(U) MPAF, PE 0303602, AF AWS						67,670	595,031	1,300,605	1,963,306			
(U) OPAF, PE 0303600, CCS-C			5,597	8,357	2,204				16,158			
(U) <b><u>E. Acquisition Strategy</u></b>												
Provide Advanced Wideband capability, making maximum use of commercial technology and practices.												
(U) <b><u>F. Schedule Profile</u></b>												
	<u>FY 2001</u>			<u>FY 2002</u>			<u>FY 2003</u>					
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Analysis of Alternatives Complete												X
(U) 1st launch in 1QFY09												
X = Planned Event												
* = Completed Event												

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Exhibit R-2 (PE 0603845F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2002			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
<b>04 - Demonstration and Validation</b>					<b>0603845F ADVANCED WIDEBAND SYSTEM (AWS)</b>				<b>4944</b>	
(U) <b><u>A. Project Cost Breakdown (\$ in Thousands)</u></b>										
					<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U)	Pre EMD (including Analysis of Alternatives)				0		0		4,982	
(U)	Total				0		0		4,982	
(U) <b><u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u></b>										
(U) <b><u>Performing Organizations:</u></b>										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	TBD	TBD	TBD	TBD	TBD	0	0	0		926,216
	<u>Support and Management Organizations</u>									
	TBD	TBD	TBD	TBD	TBD	0	0	0	4,982	45,897
	<u>Test and Evaluation Organizations</u>									
	TBD	TBD	TBD	TBD	TBD	0	0	0		0
(U) <b><u>Government Furnished Property:</u></b>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
	<u>Product Development Property</u>									
	TBD	TBD	TBD	TBD		0	0	0		0
	<u>Support and Management Property</u>									
	TBD	TBD	TBD	TBD		0	0	0		0
	<u>Test and Evaluation Property</u>									
	TBD	TBD	TBD	TBD		0	0	0		0

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Exhibit R-3 (PE 0603845F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 2002	
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
<b>04 - Demonstration and Validation</b>		<b>0603845F ADVANCED WIDEBAND SYSTEM (AWS)</b>			<b>4944</b>	
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Program</u>
<u>Subtotals</u>						
Subtotal Product Development		0	0	0	926,216	926,216
Subtotal Support and Management		0	0	0	4,982	50,879
Subtotal Test and Evaluation		0	0	0		0
Total Project		0	0	0	4,982	977,095

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